TRANSMITTAL FORM

	Attorney Docket No.
	RA998053/1163CPARCE

In re the application: **Daniel V. CONRAD et al.**

Confirmation No: **6366**

Serial No: **09/207,130**

Group Art Unit: **3623**

Filed: **March 26, 2002**

Examiner: **Robinson Boyce, Akiba K.**

For: **Method and System For Using Emulation Objects for Developing Point of Sale Applications**

ENCLOSURES *(check all that apply)*

☐	Amendment/Reply	☐	Assignment and Recordation Cover Sheet	☐	After Allowance Communication to Group
	☐ After Final	☐	Part B-Issue Fee Transmittal	☐	Notice of Appeal
☐	Information disclosure statement	☐	Letter to Draftsman	☐	Appeal Brief *(in triplicate)*
	☐ Form 1449	☐	Drawings	☐	Status Letter
	☐ (X) Copies of References	☐	Petition	■	Postcard
☐	Extension of Time Request *	☐	Fee Address Indication Form	■	Other Enclosure(s) *(please identify below):*
☐	Express Abandonment	☐	Terminal Disclaimer	- Reply To Examiner's Answer	
☐	Certified Copy of Priority Doc	☐	Power of Attorney and Revocation of Prior Powers		
☐	Response to Incomplete Appln	☐	Change of Correspondence Address		
☐	Response to Missing Parts	*Extension of Term: Pursuant to 37 CFR 1.136, Applicant petitions the Commissioner to extend the time for response for xxxxxx month(s), from to .			
	☐ Executed Declaration by Inventor(s)				

CLAIMS

FOR	Claims Remaining After Amendment	Highest # of Claims Previously Paid For	Extra Claims	RATE	FEE
Total Claims	15	20	0	$18.00	$ 0.00
Independent Claims	5	5	0	$86.00	$ 0.00
				Total Fees	$ 0.00

METHOD OF PAYMENT

☐ Check no. _____ in the amount of $ _____ is enclosed for payment of fees.

☐ Charge $ _____ to Deposit Account No. _____ (Account Holder Name) for payment of fees.

■ Charge any additional fees or credit any overpayment to Deposit Account No. 50-0563 (IBM Corporation).

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Attorney Name	Joseph A. Sawyer, Jr., Reg. No. 30,801
Signature	
Date	October 1, 2004

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on **October 1, 2004**

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Signature	

Attorney Docket: RA998053/1163CPARCE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPEAL NO:

In Re Application of: Date: October 1, 2004

Daniel V. CONRAD et al.   Confirmation No.: 6366

Serial No: 09/207,130   Group Art Unit: 3623

Filed: December 8, 1998   Examiner: Robinson Boyce, Akiba K.

For: METHOD AND SYSTEM FOR USING EMULATION OBJECTS FOR
       DEVELOPING POINT OF SALE APPLICATIONS

APPELLANT'S REPLY TO EXAMINER'S ANSWER

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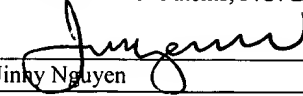
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TOPICAL INDEX

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APPELLANT'S REPLY TO EXAMINER'S ANSWER

Sir:

Appellant herein files a Reply to the Examiner's Answer as follows:

I. ISSUES

The issues presented are:

(1) whether claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15 are each unpatentable under 35 U.S.C. § 103 as being obvious in light of U.S. Patent No. 5,088,033 (Binkley) in view of U.S. Patent No. 5,812,668 (Weber).

II. ARGUMENTS

A. Summary of the Applied Rejections

In the Final Office Action dated November 6, 2003, the Examiner rejected Claims 1-15 under 35 U.S.C. § 103 as being unpatentable over Binkley in view of Weber. In particular, the Examiner cited Binkley as providing an emulation module that interfaces directly with the operating system (Binkley, col. 3, lines 3-37 and col. 8, lines 62-68). The Examiner also relied upon Binkley for teaching that the emulation module and application both interface directly with the operating system of the development system (col. 59, lines 31-38 and 54-61). The Examiner acknowledged, however, that Binkley does not relate to a POS environment or system. Consequently, the Examiner relied upon Weber as teaching the POS environment, a POS system, or a device specialized for POS equipment. The Examiner thus concluded that the present invention as recited in varying scope in claims 1-15 is obvious in light of Binkley in view of Weber.

In response to the Appellant's arguments in the Examiner's Answer, with respect to Binkley, the Examiner stated that:

> Appellant also argues that any software module used to emulate device in Binkley will interface with different operating systems, and that the system of Binkley uses separate host processors. However, the limitations of claim 1 do not disclose using the same host and emulation processor, but merely discloses that the emulation module and application both interface directly with the operating system of the development system (for one application) therefore, if there were more than one application, the emulation module for that particular application and that application would interface directly with the operating system of the

development system for that particular application, which, is different for the operating system for the first application. In addition, as disclosed by appellant on page 8, lines 5-6 of the brief, the emulation processor would naturally run the operating system and other applications for the target system, therefore, it would also be natural and common in an emulation environment for the application being developed to also interface with the operating system of the emulation processor, in addition to the operating system of the development system in order for emulation of that application to occur.

Furthermore, with respect to Weber, in the Examiner's Answer the Examiner stated:

> However, Weber describes a system where a merchant-controlled computer communicates with a *test gateway* by transmitting messages over a communications channel that are related to transactions to the test gateway computer . . . Weber describes a POS application where a data structure representing a POS transaction is initiated. Therefore, Weber describes the testing of a POS application.

Appellant respectfully requests that the Board reverse the Examiner's final rejection of claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15 under 35 U.S.C. § 103.

B. The Cited Prior Art

The cited prior art is described in Appellant's Brief filed on June 1, 2004. Furthermore, the Examiner cited col. 59, lines 31-38, 50-53, and 54-61 as teaching that the emulation module and the application being developed both interface directly with the operating system of the development system.

C. Claims 1-15 Are Not Unpatentable Under 35 U.S.C. § 103.

Appellant respectfully submits that the applied rejections of claims 1, 7, 8, 14, and 15 under 35 U.S.C. § 103 are without merit as the Examiner has completely failed to explain why Binkley in view of Weber teaches or suggests the methods, system, and computer-readable media recited in claims 1, 7, 8, 14, and 15. In particular, Binkley in view of Weber neither

teaches nor suggests directly interfacing the application being developed for a POS system and the emulation module emulating a specialized device for the POS system directly with the operating system of the development system.

Appellant respectfully disagrees with the Examiner. Appellant respectfully stands by the arguments regarding this issue and that can be found in Appellants Brief, filed on June 1, 2004. Appellant also respectfully disagrees with the Examiner's characterization of Appellant's arguments in Appellant's Brief.

Appellant acknowledges that independent claims 1, 7, 8, 14, and 15 do not require the use of a single processor in the development system. However, Appellant has not argued that the use of a single processor distinguishes claims 1, 7, 8, 14, and 15 from Binkley. Instead, Appellant has argued that the recitation by independent claims 1, 7, 8, 14, and 15 of the emulation module and the application being tested both interfacing with an operating system *of the development system* renders claims 1, 7, 8, 14, and 15 allowable. Stated differently, claims 1, 7, 8, 14, and 15 recite that the emulation module and the application both interface directly with the same operating system of the development system and are, therefore, allowable.

Appellant respectfully disagrees with the Examiner's argument that in the system of Binkley, if greater than one application is being tested, that the application and the corresponding emulation module would necessarily both interface directly with the operating system of the development system. Instead, as previously argued, Binkley describes using a host processor and an emulation processor. Appellant respectfully submits that Binkley's use of multiple processors, as well as the application's function, result in two operating systems, neither of which is directly interfaced by both the emulation module and the application being developed. In particular, the emulating processor functions as though it were the central processor of the

system being emulated. Binkley, col. 6, lines 39-52. Consequently, Appellant respectfully submits that such an emulation processor would provide a first operating system analogous to the operating system found on the actual point of sale equipment. The application being developed would interface with this first operating system. Because this first operating system is essentially that of the equipment for which the application is being developed, Appellant respectfully submits that this first operating system is not the operating system of the development system. The emulation module that mimics device for the application is run on the host processor in the system of Binkley. The emulation modules, therefore, would interface directly with a second operating system that is an operating system for the development system. Consequently, the application interfaces directly with a first operating system run by the emulation processor, while the emulation module interface directly with a second operating system of the development system. Thus, not only do the application and emulation module interface with different operating systems, but only the emulation module interfaces with the (second) operating system of the development system.

Weber fails to remedy the defects of Binkley. Appellant has found no mention in Weber of a system for developing an application for use with a point of sale environment in which the application and the emulation module that emulates devices interface directly with the operating system of the development system. As described in the above-identified Appellant's Brief, Weber describes POS technology. However, Weber relates to the final POS system used by an end user, rather than a mechanism for testing applications being developed for use with a POS system. Appellant can find no mention in Weber of interfacing emulation modules and the application being developed directly with an operating system. Thus, if the teachings of Weber are added to Binkley, the combination might use the system of Binkley, which is generic, to

develop POS applications. Thus, the emulation processor of Binkley might run POS application and the host processor might emulate the POS environment including devices that the POS system might use. However, the combination would still apparently use separate operating systems and would not use the emulation modules that are interfaced directly to an operating system which interfaces directly with the application being developed. Further, the portions of Weber cited by the Examiner in the Examiner's answer merely indicate that the system of Weber provides a test gateway for an application that has already been developed and is merely being configured and tested for use. Thus, the Examiner's citation of col. 65, lines 54-63 do not change the conclusion that Weber fails to remedy the defects of Binkley. Consequently, Binkley in view of Weber fail to teach or suggest the methods, system, and computer-readable media recited in independent claims 1, 7, 8, 14, and 15. Accordingly, Appellant respectfully submits that claims 1, 7, 8, 14, and 15 are allowable over the cited references and requests that the Board reverse the final rejection of claims 1, 7, 8, 14, and 15.

Claims 2, 3, 4, 5, and 6 depend upon independent claims 1. Claims 9, 10, 11, 12, and 13 depend upon independent claim 8. Consequently, the arguments herein apply with full force to claims 2-6, and 9-13. Accordingly, Appellant respectfully submits that claims 2-6 and 9-13 are allowable for the same reasons discussed above with respect to claims 1 and 8 and respectfully requests that the Board reverse the final rejection of claims 2-6 and 9-13.

Accordingly Appellant respectfully requests that the Board reverse the final rejection of claims 1, 2 ,3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15 under 35 U.S.C. § 103.
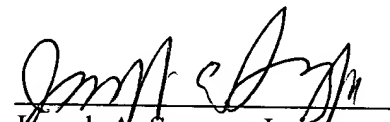
D. Summary of Arguments

For all the foregoing reasons, it is respectfully submitted that claims 1-15 (all the claims presently in the application) are patentable for defining subject matter which would not have been obvious under 35 U.S.C. § 103 or anticipated under 35 U.S.C. § 102(e) at the time the subject matter was invented. Thus, Appellant respectfully requests that the Board reverse the rejection of all the appealed claims and find each of these claims allowable.

Note: For convenience of detachment without disturbing the integrity of the remainder of pages of this Reply, an "APPENDIX" section is contained on separate sheets following the signatory portion of this Reply.

Please charge any fees that may be necessary for the continued pendency of this application to Deposit Account No. 50-0563 (IBM Corporation).

Respectfully submitted,

SAWYER LAW GROUP LLP

October 1, 2004
Date

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Attorney for Applicant
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III. APPENDIX

1.   A method for providing a point of sale environment for developing an application on a development system independently of a point of sale system, the application for use with point of sale equipment having a device, the application capable of utilizing the device when the application is executed on the point of sale equipment, the application interfacing with an operating system on the development system, the method comprising the steps of:

(a)   providing an emulation module interfacing directly with the operating system and corresponding to the device;

(b)   ensuring that the application will utilize the emulation module when the application is executed on the development system; and

(c)   executing the application on the development system independently of the point of sale system, wherein the emulation module and the application emulate the interaction between the application and the device that occurs when the application is executed on the point of sale equipment;

wherein the emulation module and the application both interface directly with the operating system of the development system; and

wherein the device is specialized for the point of sale equipment.

2.   The method of claim 1 wherein the step of providing the emulation module further includes the steps of:

(a1)   providing an emulation object corresponding to the device.

3.   The method of claim 2 wherein the application is platform independent and the emulation object is platform independent.

4.   The method of claim 3 wherein the application is a JAVA application and the emulation object is a JAVA emulation object.

5.   The method of claim 2 wherein the point of sale equipment includes a driver for controlling the device, the application interfacing with the driver when the application utilizes the device.

6.   The method of claim 5 wherein the emulation object emulates the driver and the device.

7.   A method for testing an application on a development system having an operating system, the application for use with point of sale equipment having a device, the application interfacing with the operating system and being capable of utilizing the device when the application is executed on the point of sale equipment, the method comprising the steps of:

(a)   providing an emulation object interfacing directly with the operating system and corresponding to the device;

(b)   ensuring that the application will utilize the emulation object when the application is executed on the development system;

(c)   executing the application on the development system;

(d)   ensuring that the application adequately utilizes the emulation object; and

(e)   executing the application on the point of sale equipment;

wherein when the application is executed on the development system, the emulation module and the application emulate the interaction between the application and the device that occurs when the application is executed on the point of sale equipment;

wherein the emulation module and the application both interface directly with the operating system of the development system; and

wherein the device is specialized for the point of sale equipment.

8.   A system, including an operating system, for developing an application for use with point of sale equipment having a device, the application interfacing with the operating system and capable of utilizing the device when the application is executed on the point of sale equipment, the system comprising:

an emulation module interfacing directly with the operating system and corresponding to the device; and

means for ensuring that the application will utilize the emulation module when the application is executed on the development system;

wherein when the application is executed on the system, the emulation module and the application emulate the interaction between the application and the device that occurs when the application is executed on the point of sale equipment;

wherein the emulation module and the application both interface directly with the operating system of the development system; and

wherein the device is specialized for the point of sale equipment.

9. The system of claim 8 wherein the emulation module further includes:

an emulation object corresponding to the device.

10. The system of claim 9 wherein the application is platform independent and the emulation object is platform independent.

11. The system of claim 10 wherein the application is a JAVA application and the emulation object is a JAVA emulation object.

12. The system of claim 9 wherein the point of sale equipment includes a driver for controlling the device, the application interfacing with the driver when the application utilizes the device.

13. The system of claim 12 wherein the emulation object emulates the driver and the device.

14. A computer readable medium containing at least one program for testing an application on a development system having an operating system, the application for use with point of sale equipment having a device, the application interfacing with the operating system and being capable of utilizing the device when the application is executed on the point of sale equipment, the program containing instructions for:

providing an emulation module interfacing directly with the operating system and corresponding to the device;

wherein the application is capable of utilizing the emulation module in lieu of the device when the application is executed on the development system and;

wherein when the application is executed on the development system, the emulation module and the application emulate the interaction between the application and the device that occurs when the application is executed on the point of sale equipment;

wherein the emulation module and the application both interface directly with the operating system of the development system; and

wherein the device is specialized for the point of sale equipment.

15.   A computer readable medium containing at least one program for facilitating development of an application on a development system having an operating system, the application for use with point of sale equipment having a device, the application interfacing with the operating system and being capable of utilizing the device when the application is executed on the point of sale equipment, the program containing instructions for:

emulating the interaction between the application and the device using an emulation module interfacing directly with the operating system;

allowing a developer to provide input; and

providing the input to the application in a form expected from the device;

wherein the emulation module and the application both interface directly with the operating system of the development system; and

wherein the device is specialized for the point of sale equipment.